WHAT IS CLAIMED IS:

1.   A method for initiating a location-based service from a third party service provider (SP), comprising the steps of:

5   encrypting a client's identification information using an encryption key previously obtained from a network location server (NLS), wherein the NLS maintains a record indicating a location associated with the identification information;

transmitting the encrypted identification information from the client to the

10   SP;

launching a location request from the SP to the NLS, the location request including the encrypted identification information received from the client; and

providing the location-based service according to a response to the location request from the NLS.

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2. The method of claim 1, wherein in the providing step, the location-based service is provided directly to the client by the SP.

3. The method of claim 1, wherein the client is a mobile station in a

20   cellular network.

4. The method of claim 1, wherein a transaction identification number for tracking and identifying the transaction is transmitted with the encrypted identification information.

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5. The method of claim 4, wherein the transaction identification number is encrypted to yield a one-time password prior to being transmitted with the encrypted identification information.

30   6. The method of claim 1, wherein the encryption key is a public key and

the client's identification is encrypted using a public key cryptography (PKC) method.

7. The method of claim 6, wherein prior to transmitting the encrypted identification information, the client signs the information with a digital signature and before providing a response to the location request the NLS uses a previously obtained public key associated with the client to verify the information according to the digital signature.

8. The method of claim 1, wherein the encryption key is obtained from the NLS while offline.

9. The method of claim 1, wherein the step of transmitting the encrypted identification information from the client to the SP is performed offline.

10. The method of claim 1, wherein the SP provides the location-based service according to a response to the location request from the NLS and according to a previously established schedule corresponding to the client.

11. The method of claim 1, wherein prior to launching a location request, the SP encrypts the location request and the encrypted identification information and before providing a response to the location request the NLS uses a previously obtained encryption key associated with the SP to decrypt the location request and information.

12. A system for providing a location-based service to a subscriber, the system comprising:

mobile electronic equipment that encrypts the subscriber's identification information using a previously obtained encryption key associated with a NLS and that transmits the encrypted identification information;

the NLS that decrypts the client's encrypted identification information and maintains a record indicating a location associated with the client's identification information; and

a SP that receives the transmitted encrypted identification information from the mobile electronic equipment, transmits a location request to the NLS, the location request including the received encrypted identification information, and provides the location-based service to the subscriber via the mobile electronic equipment according to a response to the location request from the NLS.

13. The system of claim 12, wherein the location-based service is provided directly to the client by the SP.

14. The system of claim 12, wherein the mobile electronic equipment is a mobile station in a cellular network.

15. The system of claim 12, wherein a transaction identification number for tracking and identifying the transaction is transmitted with the encrypted identification information.

16. The system of claim 15, wherein the transaction identification number is encrypted to yield a one-time password prior to being transmitted with the encrypted identification information.

17. The system of claim 12, wherein the encryption key is a public key and the subscriber's identification is encrypted using a public key cryptography (PKC) method.

18. The system of claim 12, wherein public key is obtained from the NLS while offline.

19. The system of claim 12, wherein the encrypted identification information is transmitted from the client to the SP while offline.

5   20. The system of claim 12, wherein the SP provides the location-based service according to a response to the location request from the NLS and according to a previously established schedule corresponding to the client.

21. A network entity for providing anonymous location information about mobile clients, the network entity comprising:

10   means that determine locations of the mobile clients and associate each mobile client's identification information with a corresponding location;

means that decrypt encrypted client's identification information received with a location request from a service provider to determine a requested corresponding location-based on the mobile client's identification information;

15   means that provide the requested corresponding location of the mobile client to the service provider in response to the location request without identifying the mobile client.

22. The network entity of claim 21, wherein the mobile client is a mobile

20   station in a cellular network.

23. The network entity of claim 22, wherein the client's identification information is encrypted and decrypted using a public key cryptography (PKC) method.

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24. A computer program product for providing a location-based service from a SP to a client, the computer program product comprising:

a computer-readable storage medium having computer-readable program code means embodied in said medium, said computer-readable program code

30   means including:

logic that encrypts a client's identification information using a public key exchanged with a NLS, wherein the NLS stores a record indicating a location associated with the identification information;

logic that transmits the encrypted identification information from the client

5 to the SP;

logic that launches a location request from the SP to the NLS, the location request including the encrypted identification information received from the client; and

logic that provides the location-based service according to a response to

10 the location request from the NLS.

25. The computer program product of claim 24, wherein the client is a mobile station subscriber.

15 26. The computer program product of claim 24, wherein the client's identification is encrypted using a public key cryptography (PKC) method.

27. A mobile client for anonymously receiving location-based services in a communications network, the mobile client comprising:

20 means that encrypt corresponding mobile client identification information and transmit the encrypted client identification information with a request for the location-based services to a service provider; and

means that receive and process the location-based services in response to the request.

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28. The mobile client of claim 27, wherein the mobile client is a mobile station in a cellular network.

29. The mobile client of claim 27, wherein the mobile client additionally

30 includes means that exchange encryption keys with a network entity responsible

for maintaining location information corresponding to the mobile client.

30. The mobile client of claim 29, wherein the mobile client additionally includes means that, prior to transmission, sign the client identification information and the request for the location-based services with a digital signature to provide verification of the mobile client to the network entity.

31. The mobile client of claim 27, wherein the client identification information is encrypted using a public key cryptography (PKC) method.

32. The mobile client of claim 27, wherein the mobile client additionally includes means that encrypt corresponding transaction identification information and transmits the encrypted transaction identification information with the request for the location-based services to the service provider, the encrypted transaction identification information providing transaction tracking and verification.

33. The mobile client of claim 32, wherein the encrypted transaction identification information acts as a one-time password.